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## **STATUS REPORT FOR FUMIGANT PESTICIDES**

March, 2004

### **I. SCHEDULED AIR MONITORING**

The Air Resources Board (ARB) has a network of stations that routinely monitor California's air for a variety of pollutants such as ozone, particulate matter, metals, and other toxic air contaminants. In 2002, ARB began monitoring for methyl bromide and 1,3-dichloropropene every 12 days at approximately 20 stations in primarily urban areas throughout the State. Results of monitoring in 2002 are available from the following ARB Web page:

<http://www.arb.ca.gov/aqd/toxics/toxics.html>

No other ambient air monitoring is scheduled for any fumigants in 2004. Some fumigants are scheduled for application site monitoring, as described below.

### **II. ACUTE BUFFER ZONE MODELING**

DPR utilizes a standard methodology to calculate buffer zones for acute exposures. Fumigant pesticide registrants and some grower groups have suggested some specific refinements to the current modeling methodology that they believe will improve the procedure and incorporate local information and more representative meteorological conditions. Industry has proposed an alternative approach to DPR's modeling procedures. Their approach would incorporate historical weather data, revising the method to estimate flux and the method to determine the size of buffer zones. The alternative approach would be utilized by the industry at their discretion in specific areas. The standard DPR model would remain in place statewide. DPR awaits the industry's results of using their methodology to identify regions of the state with comparable weather conditions through statistical analysis once weather data have been gathered and incorporated into the model.

### **III. METHYL BROMIDE**

#### **1. Risk Assessment/Data Evaluation**

The completed methyl bromide risk characterization document is available at:

[http://www.cdpr.ca.gov/docs/methbrom/riskasses\\_fum.htm](http://www.cdpr.ca.gov/docs/methbrom/riskasses_fum.htm)

#### **2. Risk Management Status**

- As a result of lawsuits, court orders and settlements outlined in the September 2003 edition of this report, DPR has proposed to permanently adopt methyl bromide field fumigation regulations focusing on mitigating possible acute (short-term) and subchronic (seasonal) methyl bromide exposure hazards to the public



and agricultural employees. The 45-day public comment period closed on December 18, 2003. DPR held hearings in mid-November in Ventura, Salinas, and Sacramento. In response to the comments received, DPR has made changes to the text from that which was originally proposed. Also, additional documents that DPR has relied upon in adopting the proposed regulations have been added to the rulemaking file. The modified text and the additional documented relied upon will be made available to the public for 15 days, during which written comments on the modifications will be received.

The draft documents are being reviewed by the Department of Food and Agriculture as part of the consultation requirements pursuant to FAC section 11454.2, and the February 6, 1992 Memorandum of Agreement which was developed as provided in section 11454.2.

- Information on the methyl bromide regulatory issues is found at the following DPR Web site:  
[http://www.cdpr.ca.gov/docs/dprdocs/methbrom/fum\\_regs.htm](http://www.cdpr.ca.gov/docs/dprdocs/methbrom/fum_regs.htm)

### 3. Critical Use Exemption Under the Clean Air Act

- The Parties to the Montreal Protocol were not able to reach agreement at their November 2003 meeting on requested critical use exemptions (CUEs). Results of the Parties deliberations on CUE issues on March 24-26, 2004 in Montreal, Canada, indicate the U.S. will receive 35% of its baseline for 2005. However, the Parties will not, at this time, grant multiyear exemptions. U.S. EPA will propose rulemaking on allocating CUEs among methyl bromide users.

## IV. **1,3-DICHLOROPROPENE**

- DPR continues to use the California Management Plan: 1,3-Dichloropropene (1,3-D) to manage the use of 1,3-D throughout California.
- Information on the California Management Plan: 1,3-Dichloropropene is found at the following DPR Web site:  
<http://www.cdpr.ca.gov/docs/dprdocs/methbrom/telone/mgmtplan.pdf>
- Enforcement Letter, ENF 02-37 Recommended Permit Conditions for Using 1,3-D Pesticides (Fumigant) provides guidance to county agricultural commissioners and is posted on DPR's Web site at:  
<http://www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf2002/2002menu.htm>

## **V. CHLOROPICRIN**

### **1. Risk Assessment/Data Evaluation**

- ARB conducted ambient air monitoring for chloropicrin during the 2001 pesticide use season. ARB conducted monitoring at the same 12 sites and time periods as the other fumigants. The final report for Monterey and Santa Cruz counties is posted on the following DPR Web site:  
[http://www.cdpr.ca.gov/docs/dprdocs/methbrom/recent\\_pubs.htm](http://www.cdpr.ca.gov/docs/dprdocs/methbrom/recent_pubs.htm)
- DPR requested that ARB conduct monitoring for another application site in 2004.
- On October 16, 2001, DPR placed all products containing chloropicrin into reevaluation. The reevaluation is based on data submitted under the Birth Defect Prevention Act. These data indicate that chloropicrin has the potential to cause adverse health effects at low doses. Air monitoring data submitted by the Chloropicrin Manufacturers Task Force indicate that the air levels of chloropicrin at some distances from treated greenhouses or fields could exceed the NIOSH standard of 0.1 ppm. Under the reevaluation, chloropicrin registrants are required to submit: (1) worker exposure studies for each type of chloropicrin fumigation site, and (2) ambient air quality monitoring and flux measurements from field and greenhouse applications, if methods other than the ones for which DPR already has data are to be employed. DPR awaits the submission of requested studies.
- Chloropicrin is currently in the risk assessment process.

## **VI. MITC GENERATING COMPOUNDS**

### **1. Risk Assessment/Data Evaluation**

- ARB conducted ambient air monitoring for MITC and methyl isocyanate during the 2001 pesticide use season. ARB conducted monitoring at the same 12 sites and time periods as the other fumigants. The final report for Monterey and Santa Cruz counties is posted on the following DPR Web site:  
<http://www.cdpr.ca.gov/docs/empm/pubs/tac/metamsod.htm>
- The completed MITC risk characterization document is available at:  
<http://www.cdpr.ca.gov/docs/empm/pubs/tac/finlmenu.htm>

## 2. Risk Management Status

- On December 2, 2002, DPR issued a public document that outlines its risk management decision.
- DPR listed MITC and other compounds that generate MITC as toxic air contaminants.
- DPR previously had requested and now has received mitigation proposals from the Metam Sodium Manufacturers Task Force and one other registrant in March 2003 to address acute offsite exposure. DPR reviewed the proposals and is preparing a mitigation strategy. DPR will hold meetings this spring and summer with registrants, county agricultural commissioners, and other stakeholders before finalizing the document.

## **VII. SULFURYL FLUORIDE**

### 1. Risk Assessment/Data Evaluation

- Sulfuryl fluoride is currently in the risk assessment process.
- DPR has proposed a 2004 schedule to ARB and the Office of Environmental Health Hazard Assessment for presenting sulfuryl fluoride as a potential toxic air contaminant to the AB 1807 Scientific Review Panel.
- ARB monitored a structural fumigation in Sacramento County during October 2002. The final report is posted to the following DPR Web site:  
[http://www.cdpr.ca.gov/docs/empm/pubs/tac/studies/sulfuryl\\_fl.htm](http://www.cdpr.ca.gov/docs/empm/pubs/tac/studies/sulfuryl_fl.htm)
- ARB will monitor additional structural fumigations in 2004.

## **VIII. POTENTIAL NEW FUMIGANTS/FUMIGANT ALTERNATIVES**

- DPR has received applications from Arvesta, formerly Tomen Agro, to register products containing the active ingredient iodomethane (methyl iodide). DPR and the U.S. Environmental Protection Agency are conducting a joint review of the off-site air monitoring data.

## **IX. VOLATILE ORGANIC COMPOUNDS**

- Volatile organic compounds (VOCs) contribute to the formation of tropospheric ozone, which is harmful to human health when present at high enough concentrations. Many active and inert ingredients in pesticide products are VOCs. The federal Clean Air Act requires each state to submit a state implementation plan (SIP) for achieving and maintaining federal ambient air quality standards including the standard for ozone. ARB and the San Joaquin Valley Air Pollution Control District are scheduled to complete a SIP in early 2004 that will describe the steps to attain the ozone standard by 2010 in the San Joaquin Valley. ARB estimates that all sources, including pesticides, will need to reduce VOC emissions an additional 30 percent between 2005 and 2010 in order to achieve the ozone standard. DPR is working with ARB and others to incorporate possible reduction options for VOC emissions from pesticides in the SIP. DPR estimates that 50-60 percent of VOC emissions from pesticides are due to fumigants.